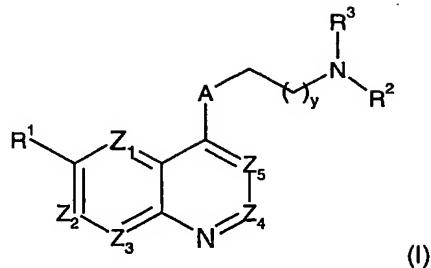


What is claimed is:

1. A compound according to formula (I)

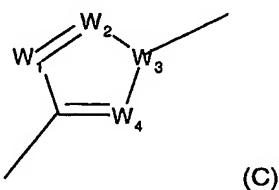


5

one of Z_1 , Z_2 , Z_3 , Z_4 and Z_5 is N, one is CR^{1a} and the remainder are CH, or
one or two of Z_1 , Z_2 , Z_3 , Z_4 and Z_5 are independently CR^{1a} and the remainder are
CH;

- 10 R^1 and R^{1a} are independently hydrogen; hydroxy; (C_{1-6})alkoxy unsubstituted or substituted by (C_{1-6})alkoxy, amino, piperidyl, guanidino or amidino any of which is optionally N-substituted by one or two (C_{1-6})alkyl, acyl or (C_{1-6})alkylsulphonyl groups, $CONH_2$, hydroxy, (C_{1-6})alkylthio, heterocyclithio, heterocyclyoxy, arylthio, aryloxy, acylthio, acyloxy or (C_{1-6})alkylsulphonyloxy; (C_{1-6})alkoxy-substituted(C_{1-6})alkyl; halogen; (C_{1-6})alkyl; (C_{1-6})alkylthio; trifluoromethyl; trifluoromethoxy; nitro; cyano; azido; acyl; acyloxy; acylthio; (C_{1-6})alkylsulphonyl; (C_{1-6})alkylsulphoxide; arylsulphonyl; arylsulphoxide or an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two (C_{1-6})alkyl, acyl or (C_{1-6})alkylsulphonyl groups;
- 15 20 provided that when Z_1 , Z_2 , Z_3 , Z_4 and Z_5 are CR^{1a} or CH, then R^1 is not hydrogen;

- 25 A is a substituted or unsubstituted 5 membered aromatic heterocyclic ring of formula (C):



wherein:

W_1 and W_2 are each independently selected from N, O, S, and CR⁸;

W_3 is N or C;

5 W_4 is N, O, S, or CR⁸;

each R⁸ is independently selected from hydrogen; hydroxy; halogen; trifluoromethyl; trifluoromethoxy; cyano; nitro; azido; acyl; acyloxy; acylthio; amino, mono- and di-(C₁₋₆)alkylamino; and substituted and unsubstituted (C₁₋₆)alkoxy,

10 (C₁₋₆)alkyl, (C₃₋₇)cycloalkyl, aminocarbonyl, (C₁₋₆)alkylthio, (C₁₋₆)alkylsulphonyl, and (C₁₋₆)alkylsulphoxide;

R² is hydrogen, or (C₁₋₆)alkyl or (C₂₋₆)alkenyl optionally substituted with 1 to 3 groups selected from:

15 amino optionally substituted by one or two (C₁₋₄)alkyl groups; carboxy; (C₁₋₄)alkoxycarbonyl; (C₁₋₄)alkylcarbonyl; (C₂₋₄)alkenyloxycarbonyl; (C₂₋₄)alkenylcarbonyl; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C₁₋₄)alkyl, hydroxy(C₁₋₄)alkyl, aminocarbonyl (C₁₋₄)alkyl, (C₂₋₄)alkenyl, (C₁₋₄)alkylsulphonyl, trifluoromethylsulphonyl,

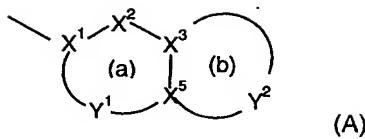
20 (C₂₋₄)alkenylsulphonyl, (C₁₋₄)alkoxycarbonyl, (C₁₋₄)alkylcarbonyl, (C₂₋₄)alkenyloxycarbonyl or (C₂₋₄)alkenylcarbonyl; cyano; tetrazolyl; 3-hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-ylaminocarbonyl; 5-oxo-1,2,4-oxadiazol-3-yl; halogen; (C₁₋₄)alkylthio; trifluoromethyl; hydroxy optionally substituted by (C₁₋₄)alkyl, (C₂₋₄)alkenyl,

25 (C₁₋₄)alkoxycarbonyl, (C₁₋₄)alkylcarbonyl, (C₂₋₄)alkenyloxycarbonyl, (C₂₋₄)alkenylcarbonyl; oxo; (C₁₋₄)alkylsulphonyl; (C₂₋₄)alkenylsulphonyl; or (C₁₋₄)aminosulphonyl wherein the amino group is optionally substituted by (C₁₋₄)alkyl or (C₂₋₄)alkenyl;

30 R³ is a group -U-R⁴ where

U is selected from CH₂, C=O, and SO₂ and

R⁴ is a substituted or unsubstituted bicyclic carbocyclic or heterocyclic ring system (A):



containing up to four heteroatoms in each ring in which

- ring (a) is aromatic and ring (b) is aromatic or non-aromatic;
- X^1 is C;
- 5 X^2 is N or CR⁵;
- X^3 and X^5 are C;
- Y^1 is a 1 to 2 atom linker group, each atom of which is independently selected from N and CR⁵;
- Y^2 is a 2 to 6 atom linker group, each atom of Y^2 being independently selected from N, NR⁷, O, S(O)x, CO, CR⁵ and CR⁵R⁶;
- each of R⁵ and R⁶ is independently selected from: hydrogen; (C₁₋₄)alkylthio; halo; carboxy(C₁₋₄)alkyl; halo(C₁₋₄)alkoxy; halo(C₁₋₄)alkyl; (C₁₋₄)alkyl; (C₂₋₄)alkenyl; (C₁₋₄)alkoxycarbonyl; formyl; (C₁₋₄)alkylcarbonyl;
- 15 (C₂₋₄)alkenylloxycarbonyl; (C₂₋₄)alkenylcarbonyl; (C₁₋₄)alkylcarbonyloxy; (C₁₋₄)alkoxycarbonyl(C₁₋₄)alkyl; hydroxy; hydroxy(C₁₋₄)alkyl; mercapto C₁₋₄alkyl; (C₁₋₄)alkoxy; nitro; cyano; carboxy; amino or wherein the amino group is optionally substituted by (C₁₋₄)alkoxycarbonyl, (C₁₋₄)alkylcarbonyl, (C₂₋₄)alkenylloxycarbonyl, (C₂₋₄)alkenylcarbonyl, (C₁₋₄)alkyl or (C₂₋₄)alkenyl
- 20 and optionally further substituted by (C₁₋₄)alkyl or (C₂₋₄)alkenyl; or (C₂₋₆)alkenyl; (C₁₋₄)alkylsulphonyl; (C₂₋₄)alkenylsulphonyl; or aminosulphonyl wherein the amino group is optionally mono- or di-substituted by (C₁₋₄)alkyl or (C₂₋₄)alkenyl; aryl; aryl(C₁₋₄)alkyl; or aryl(C₁₋₄)alkoxy;
- 25 each R⁷ is independently hydrogen; trifluoromethyl; (C₁₋₄)alkyl unsubstituted or substituted by hydroxy, (C₁₋₆)alkoxy, (C₁₋₆)alkylthio, halo or trifluoromethyl; (C₂₋₄)alkenyl; aryl; aryl (C₁₋₄)alkyl; arylcarbonyl; heteroarylcarbonyl; (C₁₋₄)alkoxycarbonyl; (C₁₋₄)alkylcarbonyl; formyl; (C₁₋₆)alkylsulphonyl; or aminocarbonyl wherein the amino group is optionally substituted by
- 30 (C₁₋₄)alkoxycarbonyl, (C₁₋₄)alkylcarbonyl, (C₂₋₄)alkenylloxycarbonyl, (C₂₋₄)alkenylcarbonyl, (C₁₋₄)alkyl or (C₂₋₄)alkenyl and optionally further substituted by (C₁₋₄)alkyl or (C₂₋₄)alkenyl; and

x is 0, 1, or 2;

y is 1, or 2; or a pharmaceutically acceptable salt thereof.

- 5 2. A compound according to claim 1 wherein Z₅ is CH or N, Z₃ is CH or CF and Z₁, Z₂ and Z₄ are each CH, or Z₁ is N, Z₃ is CH or CF and Z₂, Z₄ and Z₅ are each CH.
- 10 3. A compound according to claim 1 wherein R¹ is methoxy and R^{1a} is H or when Z₃ is CR^{1a} it may be C-F.
- 15 4. A compound according to claim 1 wherein heterocyclic ring (C) is substituted or unsubstituted pyrrole, thiophene, furan, thiazole or triazole.
- 15 5. A compound according to claim 1 wherein R² is hydrogen or unsubstituted or substituted (C₁₋₆)alkyl.
- 20 6. A compound according to claim 1 wherein in the heterocyclic ring (A) Y² has 3-5 atoms including NR⁷, O or S bonded to X⁵ and NHCO bonded via N to X³, or O or NH bonded to X³.
- 25 7. A compound according to claim 1 wherein R⁴ is selected from:
4H-benzo[1,4]thiazin-3-one-6-yl,
4H-pyrido[3,2-b][1,4]thiazin-3-one-6-yl,
4H-pyrido[3,2-b][1,4]oxazin-3-one-6-yl,
1,2,3,4-tetrahydro-[1,8]naphthyridine-7-yl,
1H-pyrido[3,2-b][1,4]thiazin-2-one-7-yl,
4H-benzo[1,4]oxazin-3-one-6-yl, and
6-fluoro-2,3-dihydrobenzo[1,4]dioxine-7-yl.
- 30 8. A compound according to claim 1 which is 3-Oxo-3,4-dihydro-2H-benzo[1,4]thiazine-6-sulfonic acid {3-[4-(6-methoxy-[1,5]naphthyridin-4-yl)-[1,2,3]triazol-1-yl]-propyl}amide or 6-{[(2-{4-[6-(methoxy)-1,5-naphthyridin-4-yl]-1,3-thiazol-2-yl}ethyl)amino]methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one dihydrochloride

or a pharmaceutically acceptable salt thereof.

9. A method of treatment of bacterial infections in mammals which comprises the administration to a mammal in need thereof an effective amount of a compound
5 according to claim 1.

10. A pharmaceutical composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier for use in the treatment of bacterial infections in mammals.

10

11. A pharmaceutical composition comprising a compound according to claim 1, and a pharmaceutically acceptable carrier.